AMENDMENTS TO THE CLAIMS

Please amend Claims 1, 4, 8, 10-11, 14-15, and 18 and add new Claim 20 as follows, without prejudice or disclaimer to continued examination on the merits:

1. (Currently Amended): A system, comprising:

a transmitter element creating an interrogation signal and transmitting the interrogation signal; and

a receiver element receiving and demodulating a reflection signal of the interrogation signal and combining the reflection signal and a feedback signal to cancel at least a portion of radio frequency echo signals in the reflection signal, wherein the feedback signal comprises the at least a portion of radio frequency echo signals at lower frequencies than a data signal of interest.

2. (Original): The system according to claim 1, wherein the feedback signal is derived by isolating an error component of the reflection signal.

3. (Original): The system according to claim 2, wherein the error component of the reflection signal is isolated in one of an in-phase signal and a quadrature signal.

4. (Currently Amended): The system according to claim 2, wherein the error component of the reflection signal is isolated by low pass filtering the reflection signal.

5. (Original): The system according to claim 4, wherein the feedback signal is combined with the reflection signal within an impulse response time of a filtering element which is filtering the reflection signal.

6. (Original): The system according to claim 1, wherein the reflection signal is reflected by a radio frequency tag.

7. (Original): The system according to claim 1, wherein the feedback signal is derived through one of analog processing and digital processing.

8. (Currently Amended): A method, comprising the steps of:

receiving and demodulating a reflection signal;

deriving a feedback signal from the reflection signal by isolating an error component of the reflection signal through a low pass filter; and

combining the reflection signal and the feedback signal to cancel at least a portion of radio frequency echo signals in the reflection signal.

9. (Original): The method according to claim 8, wherein the error component of the reflection signal is isolated in one of an in-phase signal and a quadrature signal.

10. (Currently Amended): A method, comprising the steps of:

demodulating a reflection signal into an in-phase signal and a quadrature signal;

low pass filtering the in-phase signal to isolate an in-phase error signal;

low pass filtering the quadrature signal to isolate a quadrature error signal;

modulating the in-phase error signal and the quadrature error signal to create a feedback signal; and

combining the reflection signal and the feedback signal to cancel at least a portion of radio frequency echo signals in the reflection signal.

11. (Currently Amended): The method according to claim 10, wherein the filtering steps ~~include one of~~ comprises ~~low pass filtering~~ isolating a base band error signal at a lower frequency than a data signal of interest ~~, band pass filtering and high pass filtering~~.

12. (Original): The method according to claim 10, further comprising the step of: amplifying the feedback signal prior to the combining step.

13. (Original): The method according to claim 10, further comprising the steps of:

converting the in-phase signal and the quadrature signal from an analog signal to a digital signal; and

converting the in-phase error signal and the quadrature error signal from a digital signal to an analog signal.

14. (Currently Amended): A system, comprising:

a demodulator to demodulate a reflection signal into an in-phase signal and a quadrature signal;

a first low pass filter to isolate an in-phase error signal from the in-phase signal;

a second low pass filter to isolate a quadrature error signal from the quadrature signal;

a modulator to modulate the in-phase error signal and the quadrature error signal to create a feedback signal; and

a combiner element to combine the reflection signal and the feedback signal to cancel at least a portion of radio frequency echo signals in the reflection signal.

15. (Currently Amended): The system according to claim 14, wherein the first and second filters are configured to isolate a base band error signal at a lower frequency than a data signal of interest ~~one of a low-pass filter, a band-pass filter, a high-pass filter and a base-band digital radio~~.

16. (Original): The system according to claim 14, wherein the combiner element is one of a radio frequency splitter and a directional coupler.

17. (Original): The system according to claim 14, further comprising:

an amplifier to amplify the feedback signal before input into the combiner element.

18. (Currently Amended): A [[The]] system ~~according to claim 14, further~~ comprising:

a demodulator to demodulate a reflection signal into an in-phase signal and a quadrature signal;

a first filter to isolate an in-phase error signal from the in-phase signal;

a second filter to isolate a quadrature error signal from the quadrature signal;

a modulator to modulate the in-phase error signal and the quadrature error signal to create a feedback signal;

a combiner element to combine the reflection signal and the feedback signal to cancel at least a portion of radio frequency echo signals in the reflection signal; and

a sample and hold element that activates a hold mode when a reflection signal is receiving a backscatter signal.

19. (Original): The system according to claim 14, further comprising:

a third filter to filter the feedback signal before input into the combiner element.

20. (New): The system according to claim 1, further comprising:

a single antenna connected to the transmitter element and the receiver element.